

NERVOUS TISSUE

Nervous Tissue contains cells that send electrical signals (neurons) and cells that care for and maintain the neurons (neuroglial cells). The bodies of neurons are primarily located in the brain and spinal cord, but axons from neurons reach throughout the body to electrically affect all your muscles and glands.

TYPES OF NERVOUS TISSUE	
Example	Function
Neurons	Can transmit electrical impulses (called "action potentials")
Neuroglial cells	Care for and support neurons

TYPES OF NEURONS:

Sensory neurons: send action potentials from your body parts TO the brain

- Allow our bodies to "know" what is happening to us—vision, hearing, taste, smell and touch
- Contain receptors that fire action potentials when stimulated by touch, taste, light, smell, sound, etc.
- Located in the retina, inner ear, taste buds, nasal passages, skin, muscles, and internal organs
- Always send their action potentials TOWARD the spinal cord and brain.

Interneurons: process sensory information

- Provide brain (central) processing of what is happening to us and "make a decision" about how to respond.
- Found in the brain and sometimes in the spinal cord
- Unlike sensory and motor neurons, they have very short processes.

Motor neurons

- Allow our bodies to "respond" to what is happening to us by moving muscles or secreting from glands.
- Fire action potentials from near the cell body when stimulated by neurotransmitters from another neuron.
- Always send their action potentials AWAY from the brain and spinal cord out to muscles and glands.

Both sensory and motor neurons send action potentials to their "axon terminals" where the electrical signal is converted to chemical neurotransmitters that jump the synaptic cleft to the next cell.